

SECTION 3

WATER PUMP RING MOUNT RADIATOR



Rotax aircraft engines are manufactured and supported by Rotax GmbH of Austria. Read and understand the Rotax manuals completely before starting with the engine installation, as they contain important engine installation, operation and maintenance information. Follow all of the important safety information provided in the Rotax manuals regarding the installation, operation and maintenance of the Rotax engine. Read and understand the Rotax Operator's Manual before starting the engine.

Make sure that your engine is registered with Rotax or an authorized distributor so that the factory warranty is in effect. In the United States, the Rotax distributor is Kodiak Research: <http://www.kodiakbs.com> Contact a Rotax distribution or service partner if you do not understand the instructions or if you have any additional questions. Maintain copies the manuals with the aircraft in case of sale. Obtain current versions of the manuals from the official Rotax website, as well as current service and maintenance information: www.rotax-aircraft-engines.com

If a discrepancy arises between the information provided by Rotax and the following pages, the Rotax manuals and/or service information and instructions take precedence. Zenith Aircraft Company does not manufacture or directly support engines.

Alternative engines will affect performance, specifications and flight characteristics of the aircraft. Also, the weight and balance of the aircraft may be adversely affected by alternative engines, and the original fuel system may not be adequate or suitable for some engines. Most alternative engines will require a custom engine mount and engine cowl.



Reinstall the water pump.



Threadlocker
Medium strength 242.

ROTAX
MAINTENANCE MANUAL II

13.3.10) Water pump housing reassembly
See Fig. 124.

Place gasket 1 and attach water pump housing 2 with 2 Allen screws 3 M5x30 and 3 Allen screws 4 M5x35 with lock washers to the ignition housing, tightening to 10 Nm (90 in.lb).

■ **CAUTION** The Allen screw 3 M5x35 at the lowest position reaches into the water chamber, therefore it is of stainless steel and fitted with a sealing ring 5 6x10. This gasket ring has to be fitted and must not be replaced by any other part.

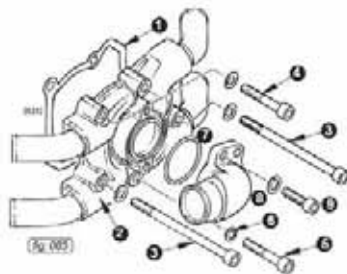
Visually check whether the impeller scuffs in the pump housing. This can be recognized by scuffing traces in the pump housing or on the impeller. If necessary, the axial position of the impeller can be corrected to achieve an optimum gap (see para. 13.3.8).

Insert O-ring 6 into water pump housing and fit the water inlet elbow 7 in the position marked before disassembly with 2 Allen screws 8 M5x30 and tighten to 10 Nm (90 in.lb).

◆ **NOTE** The water inlet elbow is symmetrical and can be fitted turned by 180° if required.

Fit coolant hoses and fix them with green hose clamps.

■ **CAUTION** Do not tighten hose clamps, excessively in order not to damage the hoses.



Effectively: 912 Series page 55
Initial version: Rev. 01/05/02



Ref. Rotax CD (supplied with engine).

13.3.10) Water pump housing — reassembly
See Pic. 124.
Place gasket 1 and attach water pump housing 2 and 3 Allen screws 3 M5x35 with lock

Section 13.3.10 Water pump housing-assembly (page 59).

Ref: Rotax Manual, Heavy Maintenance Manual II, section 13.3.10 page 59 for water pump reinstallation.



Left side, hoses through bottom Ring Mount Attachment.



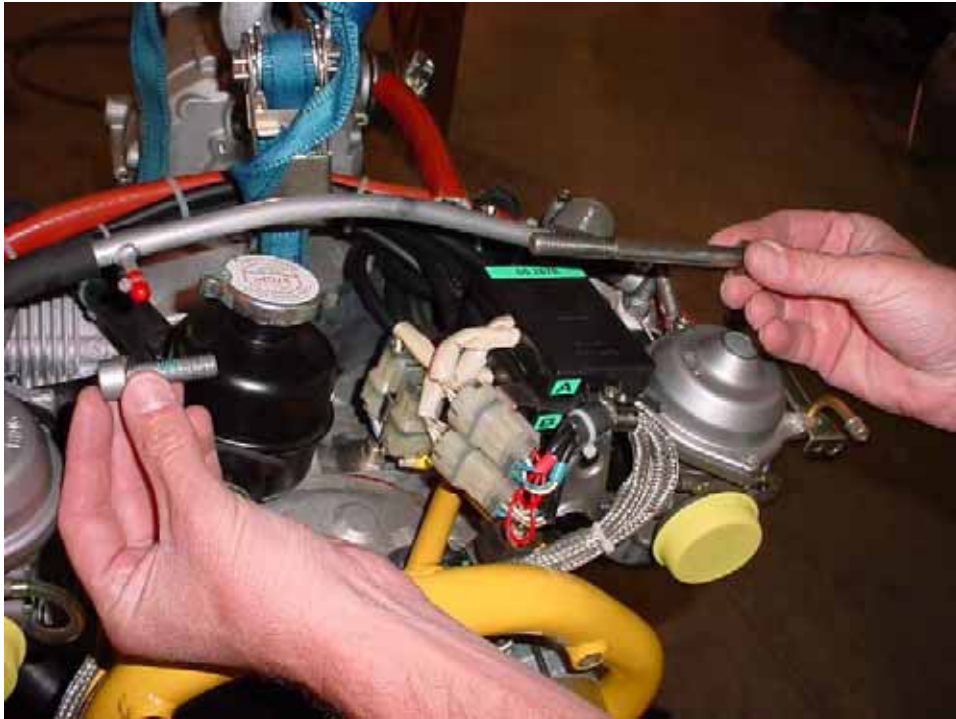
Reinstall the hoses and clamps: Detail of left side.



Right Lower Ring Mount Attachment.



Reinstall the hoses and clamps: Detail of right side.



P/N: 945-753
Lock washer

upper bolts: short = left, long = right



short = top left 10M x 35

P/N: 941-481-35
P/N: lock washer 945-753

Top left Ring Mount Attachment

Note: Allen socket with 6" extension.

Add threadlocker on threads.



Top Right Ring Mount Attachment.



long = top right 10M x 110mm.

P/N: 941-481-110

P/N: lock washer 945-753

Add threadlocker on threads.



Bottom right Ring Mount Attachment





THRUST WASHERS
(Flat thin washers)
P/N: 927-952.

If there is a gap between the bottom ring mount fitting to the engine, slide a flat washer between the engine block and the mount.



With a screw driver line up the washer.

Look in the hole to check the washer is line up with the tapped hole.



Right bracket
P/N: R-CB.



Radiator mounting brackets
1L + 1R required.



Left bracket
P/N: L-CB.



Washer between the
aluminum bracket and the
lock washer.

Flat washers
4 required.



Rear right bolt.
15.5mm spacer fits inside engine mount recessed hole.



P/N: Bolt 941-481-55.
P/N: Lock washer 945-753.
P/N: Flat washer.



Short bushing

P/N: SPACER -15.5
.625" x 10mm x 15.5mm
ALUMINUM.



Front right bolt.
Bolt 55 with flat washer and lock washer.



Long bushing

P/N: SPACER-25
.625" x 10mm X 25mm
ALUMINUM.



Rear left bolt.

15.5mm spacer fits inside engine mount recessed hole.



P/N: Bolt 941-481-55.
 P/N: Lock washer 945-753.
 P/N: Flat washer.



P/N: SPACER 15.5
 .625X10mm ALUMINUM.

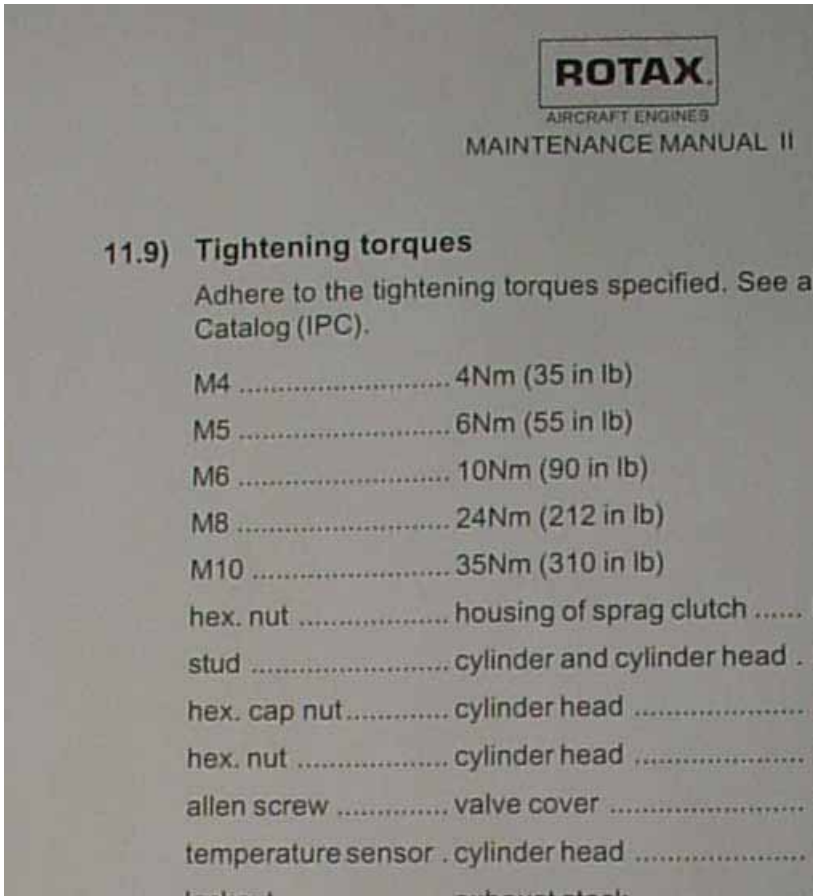


Bolt 55 with flat washer and lock washer.



Long bushing.

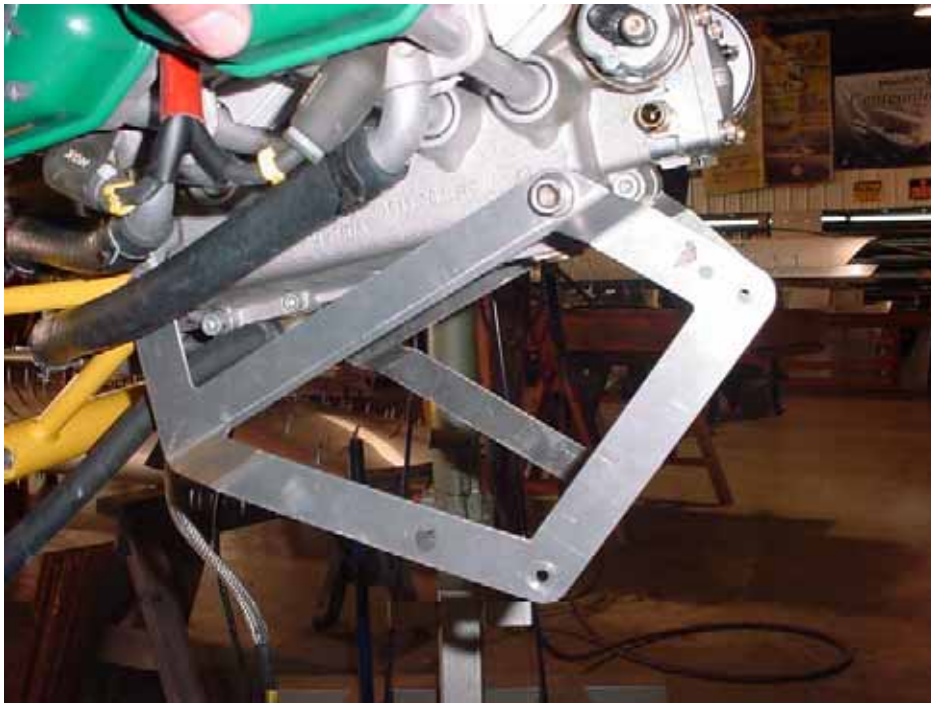
P/N: SPACER-25
 .625" x 10mm X 25mm
 ALUMINUM.



VIBRO STOP
P/N: 316-070.

Nut M6
P/N: 156-014ZP.

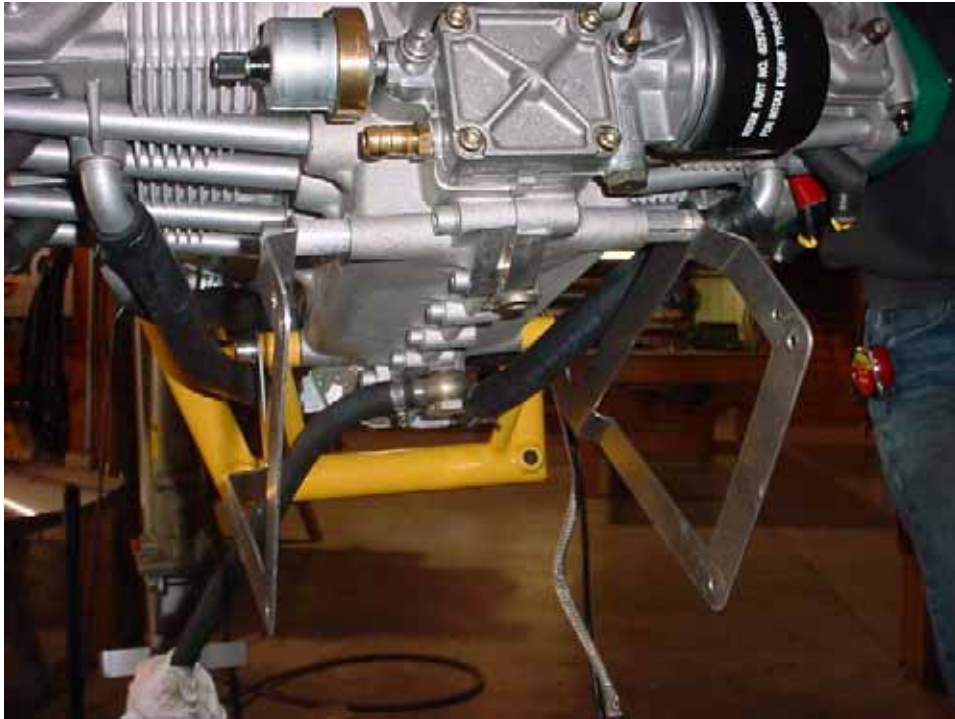
Ref: Rotax Heavy Maintenance Manual II, section 11.9 page 31. Torque values for Ring Mount attachment bolts.



ROTAX RADIATOR
P/N 955-697

Screw the rubber dampeners on the radiator (hand tighten).

Right side view.



Front view.



P/N: 156-014ZP S.L nut



Front view of radiator on brackets.





Left side view.



Supplied radiator hose

P/N: 71322



Lay the end of the hose even with the edge of the workbench.



310mm.

Cut to 310mm long. Other half of the hose is not used.